

## Species *Aceula meridiana*

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### Etymology

[me.ri.di.a'na] L. fem. adj. *meridiana*, of or belonging to the south; in reference to the southern continent of Antarctica.

### Nomenclatural type

[NCBI Assembly: GCA\\_030765185.1](#)<sup>Ts</sup>

### Description

This species belongs to the genus *Aceula*. The description for this species is derived from Williams et al., 2021, and supplemented with additional information. Genome predictions indicate that this species is likely heterotrophic, with a horse-shoe type TCA cycle, and several proteases and peptidases, along with ABC sugar transporters and glycoside hydrolases are predicted for this species. Genes required for the synthesis of trehalose and glycogen is also present, and fermentation of glucose to acetyl-CoA through the EMP pathway is likely. A V-type ATPase, respiratory F-type ATPase and Rnf complex are encoded for ATP synthesis, while Group 3d [NiFe] (Williams et al., 2021) and Group A3 [FeFe] hydrogenases are also encoded. Coupled with a reversible acetyl-CoA synthetase, acetogenesis is likely for this species. Genes required for the production of a Type-4a pilus and tight-adherence complex is encoded by the genome of this species. A very large ORF is present in this species. The type for this species is the genome designated 3300035698\_985.

### Classification

*Bacteria* » *Omnitrophota* » “*Velamenicoccia*” » “*Zapsybrales*” » “*Aceulaceae*” » *Aceula* » *Aceula meridiana*

### References

Effective publication: Williams et al., 2021 [1]

### Registry URL

<https://seqco.de/i:33277>

## References

1. Williams et al. (2021). Shedding Light on Microbial “Dark Matter”: Insights Into Novel Cloacimonadota and Omnitrophota From an Antarctic Lake. *Frontiers in Microbiology*. DOI:10.3389/fmicb.2021.741077